

Abstract of the Disclosure

A high-capacitance capacitor having a multi-layered vertical structure for use in an RF circuit is disclosed. The capacitor includes an upper electrode, a lower electrode, and a dielectric layer interposed between the two electrodes. A plurality of electrodes is formed in parallel in the dielectric layer in a diagonal direction. First electrodes, which are half of the plurality of electrodes, are coupled to only the upper electrode, while second electrodes, which are the other half of the plurality of electrodes, are coupled to only the lower electrode. The first electrodes and the second electrodes are alternately positioned in rows and columns. The capacitor does not require additional processes, thereby reducing complexity and cost of fabrication thereof.